### WS-8010U Wireless 433 MHz Giant Radio Controlled Weather Center

## **Instruction Manual**





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## **INVENTORY OF CONTENTS**

- 1. WS-8010U—Giant Radio Controlled Weather Center.
- 2. TX4U—Remote Thermo-Hygro (temperature-humidity) includes: mounting bracket/receptor, rain cover, and two mounting screws.
- 3. Instruction manual and warranty card.

#### ADDITIONAL EQUIPMENT (not included)

- 1. Three fresh 1.5V C batteries.
- 2. Two fresh 1.5V AA batteries.
- 3. Philips screwdriver.
- 4. Three mounting screws.

#### QUICK SET-UP

- 1. Insert two AA batteries into the Remote Thermo-Hygro.
- 2. Insert three C batteries into the Weather Center.
- 3. Wait 5 minutes for the Weather Center to receive remote signals from the Remote Thermo-Hygro sensor.
- 4. Wait an additional 10 minutes for the WWVB signals to be received. If the WWVB signal is not found in this time period, manually set the time (see complete instructions) or wait until the Weather Center conducts its nightly auto-search during the ideal reception time (12:00 am to 6:00 am).
- 5. Mount the units, ensuring that all units are sending and receiving signals.

## DETAILED SET-UP GUIDE

## I. BATTERY INSTALLATION

## A. REMOTE THERMO-HYGRO SENSOR

- 1. Pull the cylindrical rain cover off the sensor.
- 2. Remove the battery cover (located on the backside of the sensor, above the mounting post and bracket). Press the arrow and push in the direction of the



arrow, sliding the battery cover off.

- 3. Observing the correct polarity install 2 AA batteries. The batteries will fit tightly (avoid start-up problems—make sure they do not spring free).
- 4. Replace the battery cover, and place the rain cover snugly onto the sensor.

#### **B. WEATHER CENTER**

- 1. Remove the battery cover. Place a solid object in the space provided at the lower-central position of the battery cover (above the + and *SET* buttons), then push up and pull out on the battery cover.
- Observe the correct polarity, and install three C batteries. The batteries will fit tightly (avoid start-up problems, make sure they do not spring free).



3. Replace the battery cover.

**Note:** Immediately after the batteries have been installed the LCD (Liquid Crystal Display) will flash. Within a few seconds the indoor temperature and humidity will display, along with the default settings for the time (12:00), the date (1.1), the weekday (FR), the year (99), and the forecast icon (clouds with sun). Within 5 minutes the outdoor temperature and humidity should be displayed. If not, remove batteries from both units for 10 seconds, and repeat battery installation procedure. If the batteries are installed during optimal times for WWVB reception (12:00 am to 6:00 am) the time will be received within 10 minutes, after the signals from the sensors have been received. The default WWVB time is Eastern. Do not press any buttons while the Weather Center is receiving signals from the sensor—the Weather Center does not allow programming when it is searching for or receiving signals.

#### PROGRAM MODE



The Program Mode is laid out in a manner that allows you to program each function separately, or you can follow the instructions entirely to program the Weather Center completely. Complete programming is usually done for the initial set-up, and will require you to skip step 1 of each programming section (from section III to XI). The programming mode can be exited at any time by pressing *key* #1, #2, or #3, or by waiting for the 20-second time-out to take effect.

#### I. FUNCTION KEYS



<u>Note:</u> Figure 1 shows the left side view. Buttons #1, #2, and #3 are located to the left of the LCD screen. Figure 2 shows the backside of the Weather Center, and the location of the + and SET buttons.

### II. SETTING THE LCD CONTRAST

- 1. Press the *SET* button, the default setting "LCD 5" will flash in the DATE DISPLAY.
- 2. There are 8 LCD contrast levels to choose from—"LCD 0" is the lightest and "LCD 7" is the darkest.
- 3. Press the + button to toggle through the various settings.
- 4. Press the *SET* button to confirm, and to advance to the Time Zone setting mode.

### III. TIME ZONE SETTING

- 1. Press the SET button two times to enter the Time Zone setting mode.
- 2. The default setting "ET -5" will be flashing in the DATE DISPLAY.
- 3. Press the + button to select the appropriate time zone (see chart for time zones and their corresponding codes). The time will change simultaneously with time zone selection.

Atlantic	AT	-4
Eastern	ET	-5
Central	CT	-6
Mountain	MT	-7
Pacific	PT	-8
Alaska	AL	-9

4. Press the *SET* button to confirm, and to advance to the Daylight Saving Time (DST) setting mode.

## IV. DAYLIGHT SAVING TIME (DST)

- 1. Press the *SET* button three times to enter the DST setting mode.
- 2. Press the + button to select either "DT On" or "DT OFF."
- 3. Press the *SET* button to confirm, and to advance to the Language setting mode.

## V. LANGUAGE SETTING

<u>Note:</u> The language setting only affects the language that the weekday is displayed in.

- 1. Press the *SET* button four times to enter the Language setting mode.
- 2. The default setting "USA" (representing English) will flash in the DATE DISPLAY.
- 3. Press the + to select a language (see chart for languages and corresponding abbreviations).

English	USA
French	F
Italian	Ι
Dutch	NL
Danish	DK
Spanish	Е
Japanese	J
German	D

4. Press the *SET* button to confirm, and to advance to the 12/24 hour setting mode.

### VI. 12/24 HOUR SELECTION

- 1. Press the *SET* button five times to enter the 12/24 hour selection mode.
- 2. The default setting of "12h" will flash in the TIME DISPLAY.
- 3. Press the + button to select either "12h" (AM/PM mode) or "24h" (military time) time display.
- 4. Press the SET button to confirm, and to advance to the °F or °C selection.

#### VII. SELECTING °F OR °C

- 1. Press the *SET* button six times to enter the °F or °C selection mode.
- 2. Press the + button to change from the flashing default setting "°F" to "°C."
- 3. The temperature displays change simultaneously as °F or °C are selected.
- 4. Press the SET button to confirm, and to advance to the World Time setting.

#### VIII. WORLD TIME SETTING

<u>Note:</u> The World Time allows you to set a second time, enabling you to keep track of the time in another part of the world. When setting the World Time, it is only possible to set the hour—the minutes will correspond to the current local time. "WORLD" will appear above the time in the TIME DISPLAY when this mode is being set.

- 1. Press the SET button seven times to enter the World Time setting mode.
- 2. Press the + button to select the hour.
- 3. Press the *SET* button to confirm the World Time, and to advance to the World/Local Time Display Setting.

<u>Note:</u> The mention of "local time" refers to your current local time, and is meant to distinguish between world time and your time. Unless WWVB signals have been received, it is important to remember while setting the World/Local Time display that you have not yet set the local time and will not appear as the correct time.

## IX. WORLD/LOCAL TIME DISPLAY

<u>Note:</u> The World and Local Time can be displayed in three different ways. The Local Time can be the constant time shown, the World Time can be the constant time shown, or the World/Local Time can be displayed so that they show intermittently. The intermittent display option will show the times alternately in one-second increments until that option is confirmed then, they will show for five-second increments. When the World Time is being displayed, "WORLD" will appear in the TIME DISPLAY above the time.

- 1. Press the *SET* button eight times to reach the World/Local Time Display setting mode.
- 2. The constant local time is the default setting and is shown in the TIME DISPLAY.
- 3. Press the + button to select the next display option—constant world time. Press the + button again to select the next display option—intermittent world/local time display.
- 4. Press the *SET* button to confirm, and to advance to the Graphic Time Display Options setting mode.

## X. GRAPHIC TIME DISPLAY OPTIONS

<u>Note:</u> There are four Graphic Time Display Options. All options have a triangular arrow that points to the hour printed on the perimeter of the LCD screen, which corresponds to the local-time hour. The four options affect how the minutes are displayed. The hour-arrow and the minute-dots encompass the outermost perimeter of the LCD screen. When this mode is being set, a "clock-face" icon will be shown in the DATE DISPLAY. The Graphic Time Display Options are as follows:

<u>Option 1</u>: The hour-arrow points and flashes to an hour that corresponds with the current local time. The minute-dots will line the perimeter of the LCD screen. The minutes that have past will remain (not flashing) on the screen, but the current minute will flash in a minute position that corresponds to the minute of the local time.

<u>Option 2</u>: The hour-arrow points and flashes to an hour that corresponds with the current local time. The minute-dot will flash in a minute position that corresponds to the minute of the local time.

<u>Option 3</u>: Appears on the screen to be the same as Option 2, except the hourarrow and the minute-dot do not flash.

<u>Option 4</u>: The hour-arrow points and flashes to an hour that corresponds with the current local time. The minute-dots will start at zero, and count up by fives until the minute-dots reach the current minute of the local time. Once the current minute has been met, the minute-dots disappear and again begin to count up by fives, continually repeating the process.

- 1. Press the *SET* button nine times to enter the Graphic Time Display Options setting mode.
- 2. The default setting "1" will flash in the DATE DISPLAY.
- 3. To shift to other Graphic Time Display Options, press the + button. The flashing option number in the DATE DISPLAY will shift from 1 through to 4 (depending on how many times the + button is pressed).
- 4. Press the *SET* button to confirm the setting, and to advance to the Local Time setting mode.

## XI. TIME AND DATE SETTINGS

<u>Note:</u> Any time and dates that have been programmed manually will be overridden once reception from the WWVB has been established. A flashing WWVB Tower icon (displayed between the hour and minute of the time) indicates that the Weather Center is receiving the WWVB radio signals. A non-flashing tower icon indicates the time and date signal has been received.

- 1. Press the SET button 10 times to enter the Local Time setting mode.
- 2. The "12:00" default setting will flash in the TIME DISPLAY.
- 3. To change the hour press the + button.
- 4. Press the *SET* button to confirm the hours, and to advance to set the minutes.
- 5. Press the + button to change the minutes; holding the + button down will change the minutes, 5 minutes at a time.
- 6. Press the SET button to confirm the minutes, and to advance to set the year.
- 7. The "99" default year will flash in the DATE DISPLAY.
- 8. Press the + button to advance the year.
- 9. Press the *SET* button to confirm the year, and to enter the month setting mode. The default "1" will flash.
- 10. Press the + button to change the month.
- 11. Press the *SET* button to confirm the month, and to enter the date setting mode. The default "1" will flash.
- 12. Press the + button to advance the date.
- 13. Press the *SET* button to confirm the date, and to enter the weekday setting mode. The default "FR" will flash.
- 14. Press the + button to change the weekday.
- 15. Press the *SET* button to confirm the weekday and to exit the programming mode.

### FEATURES

#### I. ABOUT WWVB (Radio Controlled Time)

The NIST (National Institute of Standards and Technology—Time and Frequency Division) WWVB radio station is located in FT. Collins, Colorado, and transmits the exact time signal continuously throughout the United States at 60 kHz. The signal can be received from up to 2,000 miles away through the internal antenna in the Weather Center. However, due to the nature of the Earth's Ionosphere, reception is very limited during daylight hours. The Weather Center will search for a signal every night, when reception is best. The WWVB radio station derives its signal from the NIST Atomic clock in Boulder, Colorado. A team of atomic physicists continually measure every second, or every day, to an accuracy of ten billionths of a second a day, creating an international standard, measuring a second as 9,192,631,770 vibrations of a Cesium-133 atom in a vacuum. This Weather Center regulates the WWVB sensor.

#### II. WEATHER FORECAST

The weather forecasting feature is estimated to be 75% accurate, basing the weather forecast solely upon the change of air-pressure over time. The WS-8010U averages past air-pressure readings to provide an accurate forecast—creating a necessity to disregard all weather forecasting for 12-24 hours after the Weather Center has been set-up, reset, or moved from one altitude to another (i.e. from one floor of a building to another floor).

#### A. WEATHER ICONS

There are 3 possible weather icons that will be displayed in the FORECAST DISPLAY:



*Sunny*—indicates that the weather is expected to improve (not that the weather will be sunny).

*Sun with Clouds*—indicates that the weather is expected to be fair (not that the weather will be sunny with clouds).

*Clouds with Rain*—indicates that the weather is expected to get worse (not that the weather will be rainy).

The weather icons change when the unit detects a change in air pressure. The icons change in order, from "sunny" to "sun with clouds" to "clouds with rain," or the reverse. It will not change from "sunny" directly to "clouds with rain,"

although it is possible for the change to occur quickly. If the symbols do not change then the weather has not changed, or the change has been slow and gradual.

### **B. WEATHER TENDENCY ARROWS**

There are 2 weather tendency arrows, one appearing on each side of the Weather Icons. One tendency arrow points up (on the left side of the Display) and one points down (on the right side of the Display). These arrows reflect current changes in the air pressure. An arrow pointing up indicates that the air pressure is increasing and the weather is expected to improve or remain fair, an arrow pointing down indicates that the air pressure is decreasing and the weather is expected to become worse or remain poor. No arrow means the pressure is stable.

#### III. ADDING MORE SENSORS (optional)

The WS-8010U can receive signals from up to three Sensors. The Sensor model(s) that you choose will come with their own set of instructions—follow those instructions for a complete guide to setting up. Following are some brief instructions for the basic set-up of additional sensors with the WS-8010U. Additional sensors can be purchased through the same dealer as this Weather Center, or by contacting La Crosse Technology directly (contact information can be found at the end of this manual). A TX4U will monitor temperature and humidity (it is the same model that comes with the WS-8010U), a TX3U will monitor temperature only, and the TX3UP monitors temperature via a 10 foot probe for use in pools, spas, etc. The TX3 units do not monitor humidity, thus when they transmit their information to the Weather Center dashes "--" appear in the Humidity Display.

<u>Note:</u> When setting up multiple sensors it is important to remove the batteries from all existing units in operation, then to insert batteries first into all the sensors, and in numeric sequence. Second install batteries into the Weather Center. Transmission problems will arise if this is not done correctly and if the total time for set-up exceeds 6 minutes.

## SET-UP OF MULTIPLE SENSORS

<u>Note:</u> The first sensor signal that the Weather Center receives is automatically assigned as the "boxed #1." The  $2^{nd}$  to be received is the "boxed #2," and the  $3^{rd}$  is the "boxed #3."

- 1. It is necessary to remove the batteries from all units currently in operation.
- 2. Remove the battery covers to all sensor units (new and old).
- 3. Place all sensors in a numeric sequential order.

- 4. In sequential order, install batteries into the sensors (follow the same battery installation procedures seen in section I. A).
- 5. Install batteries into the Weather Center.
- 6. Follow the Programming Mode instructions to program and set-up the Weather Center.

## B. SELECTING WHICH SENSOR DATA TO DISPLAY

- 1. To view the outdoor temperature and humidity from a different sensor, press *key* #1. A shift from a "boxed #1" to a "boxed #2" should be observed under the DATE DISPLAY (between the Outdoor Temperature and Outdoor Humidity Displays).
- 2. Press *key #1* a second time to shift from the "boxed #2" to the "boxed #3". (Information will display only if you have three sensors in operation).
- 3. To view information from the first sensor again, press key #1.

## IV. DATE DISPLAY

<u>Note:</u> The DATE DISPLAY defaults to the month/date/year format. This display area can show an alternate way of displaying the date.

- 1. Press *key* #2. This changes the DATE DISPLAY from the standard month/date/year to a display showing the weekday/month/date.
- 2. Press *key* #2 to change back to the original date display.



## V. RAINFALL DISPLAY (optional)

<u>Note:</u> If the Rainfall feature is opted, its information will display in the Date Display, in two possible configurations. To change what and how the information is displayed, use key #2.

Following step 1 above:

1. Press *key* #2 again to change from the DATE DISPLAY to the RAIN DISPLAY. "TOTAL RAIN - -.- in" is now displayed with corresponding measurements.

<u>Note:</u> The display of "OFL" indicates that the TX4U Rainfall Gauge has reached 99.9 inches, and has **overflowed**. To reset, hold down key #2 for 3 seconds.

- 2. Press *key* #2 again, and "RAIN 24h -.- in" is displayed. This is the measure of the total number of inches of rainfall over a 24-hour period, updated daily at 7:00 am local time.
- 3. To return to the standard DATE DISPLAY of month/date/year, press *key* #2.

## VI. RAIN GAUGE SET-UP (optional)

The WS-8010U has the optional feature of adding the TX5U Rain Gauge, which can be purchased through the same dealer as the WS-8010U or by contacting La Crosse Technology directly. The rain gauge will measure rain as Total Rain in inches, or as 24-hour Rainfall in inches. The Rain Gauge comes with its own set of complete instructions, here we will briefly explain how to set-up.

- 1. Remove batteries from all existing units in operation.
- 2. Install batteries into all temperature sensors (as per instructions in section III. A under Features).
- 3. Install batteries into the Rain Gauge.
- 4. Install batteries into the Weather Center.
- 5. Wait for proper reception (see detailed set-up in section I, B).
- 6. Mount the Rain Gauge in a sturdy position, and in a position that is within transmission range.

#### VII. MINIMUM & MAXIMUM TEMPERATURE & HUMIDITY RECORDS

The WS-8010U keeps a record of the MINIMUM and MAXIMUM temperatures and humidity, and the time and date of their occurrence—for both the indoor and outdoor records.

# A. VIEWING THE INDOOR AND OUTDOOR TEMPERATURE & HUMIDITY RECORDS

- 1. Press *key #3*. The forecast icons, the outdoor temperature and humidity, and the current time and date are no longer displayed. "MIN" is flashing to the left of where the forecast icon was, the MINIMUM indoor temperature and humidity, the time and the date of occurrence are all shown in the LCD.
- Press key #3 while the MINIMUM indoor information is still displayed. "MAX" is now flashing to the right of where the forecast icon was, the MAXIMUM indoor temperature and humidity, the time and the date of occurrence are all shown in the LCD.
- 3. Press *key #3* again, while the MAXIMUM indoor information is still displayed. The information displayed by the LCD has now shifted from indoor temperature and humidity to outdoor temperature and humidity. No data is shown in the Indoor Displays, and "MIN" is flashing to the left of where the forecast icon was. The MINIMUM outdoor temperature and humidity, the time and the date of occurrence are all shown in the LCD.

- 4. Press key #3 while the MINIMUM outdoor temperature is still displayed. "MAX" is now flashing to the right of where the forecast icon was, the MAXIMUM outdoor temperature and humidity, the time and the date of occurrence are all shown in the LCD.
- 5. Press *key #3* to return to normal operating mode. (To exit the MINIMUM/ MAXIMUM mode, either press *key #1* or *key #2*, or wait for the 20-second automatic timeout).

Note: The data displayed in the Outdoor MINIMUM/MAXIMUM fields are dependent on which sensor has been selected (if there is more than one in use). If a "boxed 1" is shown under the DATE DISPLAY then the MINIMUM/MAXIMUM information will relate to the data received by sensor #1. If a "boxed 2" is shown under the DATE DISPLAY then the MINIMUM/MAXIMUM information will relate to the data received by sensor #2. The same applies for a "boxed 3." To view the MINIMUM/MAXIMUM temperature and humidity from different sensors, it is required to select a sensor before entering into the MINIMUM/MAXIMUM mode. To select a different sensor press key #1, the "boxed" number under the DATE DISPLAY will shift.

# **B. RESETTING THE MINIMUM & MAXIMUM TEMPERATURE & HUMIDITY RECORDS**

1. Press and hold *key #3* for 3 seconds. This will effectively clear the temperature and humidity for the indoor records, and all outdoor records for all sensors. The Minimum and Maximum records will be reset to current temperature and humidity readings.

### MOUNTING

**Note:** Before permanently mounting ensure that the Weather Center is able to receive WWVB signals from the desired location. Extreme and sudden changes in temperature will decrease the accuracy of the Weather Center, and changes in elevation will result with inaccurate weather forecasting for the next 12 to 24 hours. These changes will require a 12 to 24 hour wait before obtaining reliable data. To achieve a true temperature reading, avoid mounting the TX4U—Remote Thermo-Hygro (or any sensor) where direct sunlight can reach the sensor. We recommend that you mount the sensor on a North-facing wall. The sending range is 80-ft (25m) however obstacles such as walls, concrete, and large metal objects can reduce the range. Place both units in their desired location, and wait approximately 15 minutes before permanently mounting to ensure that there is proper reception. The Weather Center should display a temperature in the OUTDOOR DISPLAY within 5 minutes of setting up. If the Weather Center loses the signal from the sensor, it will display the last temperature reading for 15 minutes. After 15 minutes of not receiving any signals the OUTDOOR DISPLAY of the Weather Center will display "---".

## THE TX4U—REMOTE THERMO-HYGRO SENSOR

The TX4U—Remote Thermo-Hygro Sensor can be mounted in two ways:

- with the use of screws or,
- using the adhesive tape.

## A. MOUNTING WITH THE SCREWS

- 1. Remove the mounting bracket/receptor from the packaging plastic.
- 2. Place the mounting bracket over the desired mounting surface. Through the 2 screw holes of the bracket, mark the mounting surface with a pencil.
- 3. Where marked, start the screw holes using the provided screws. Remove screws from the mounting surface.
- 4. Align the mounting bracket with the started screw holes.



5. Screw mounting bracket onto the mounting surface. The screws should be flush with the bracket.

6. Fit the mounting post (on the back of the sensor) into the receptor of the mounting bracket.

## **B. MOUNTING WITH ADHESIVE TAPE**

- 1. With a nonabrasive solution, clean and dry the back of the mounting bracket and the mounting surface to ensure a secure hold. The mounting surface should be smooth and flat.
- 2. Remove the protective strip from one side of the tape. Press firmly onto the designated area on the back of the mounting bracket.
- 3. Remove the protective strip from the other side of the tape, and situate the mounting bracket. Firmly press the mounting bracket onto the mounting surface.
- 4. Fit the mounting post into the receptor of the mounting bracket.

## II. THE WEATHER CENTER

- 1. Using a straightedge, horizontally mark 3 screw positions with a pencil. The screw positions should be spaced 3 5/8 of an inch (94mm).
- 2. Install 3 mounting screws (not included) into a wall within range, leaving approximately 3/16 of an inch (5mm) extended from the wall.
- 3. Place the Weather Center onto the screws, using the hanging holes on the backside. Gently pull the Weather Center down to lock the screws into place.

### TROUBLESHOOTING

Problem:	No reception of WWVB time signal.			
Solution:	1) Wait overnight for signal.			
	<ol> <li>2) Be sure Weather Center is at least 6 feet from any electrical devices, such as televisions, computers, or other radio-controlled clocks.</li> <li>3) Remove batteries for 5 minutes, reinsert and leave the unit alone overnight without pressing buttons.</li> </ol>			
	4) If there are still problems, contact La Crosse Technology.			
Problem:	Hour is incorrect (minute and date are correct).			
Solution:	Be sure correct time zone and daylight saving time are selected.			
Problem:	The LCD is faint.			
Solution:	1) Set the LCD contrast to a higher level.			
	2) Replace batteries.			
Problem:	No outdoor temperature or humidity is displayed.			
Solution:	1) Remove all batteries, reinsert into sensor first, then Weather Center.			
	2) Place remote sender closer to display.			
	3) Be sure all batteries are fresh.			
	<ol> <li>No other interfering sources on a 433MHz frequency are being used (such as computer monitors, TV sets, headphones, or speakers) in the vicinity.</li> </ol>			

Note: For problems not solved, please contact La Crosse Technology.

## MAINTENANCE & CARE

- Extreme temperatures, vibrations, and shock should be avoided to prevent damage to the units.
- Clean displays and units with a soft, damp cloth. Do not use solvents or scouring agents—they may mark and damage the displays and casings.
- Do not submerge in water.
- Immediately remove all low powered batteries to avoid leakage and damage. Replace with new batteries only, and of recommended size.
- Opening the casings invalidates the warranty. Do not try to repair the units. Contact La Crosse Technology for Repairs.

#### SPECIFICATIONS

Temperature measuring range			
Indoor:	32°F to 140°F with 0.2°F resolution.		
	(0°C to 59.9°C with 0.1°C resolution).		
Outdoor:	-21°F to 140°F with 0.2°F resolution.		
	(-29.9°C to 59.9°C with 0.1°C		
	resolution).		
Relative Humidity measuring range			
Indoor/Outdoor:	20% to 95% with 1% resolution.		
Indoor Temperature checking interval:	Every 10 seconds.		
Indoor Humidity checking interval:	Every 20 seconds.		
Outdoor Temperature/Humidity	2 times every 10 minutes.		
reception:			
Transmission Range:	80 feet/25m (in open space).		
Power Supply			
Weather Center:	3 x C, IEC LR14, 1.5V.		
Sensor:	2 X AA, IEC LR6, 1.5V.		
Battery life cycle:	Approximately 12 months.		
Recommended battery type:	Alkaline.		
Dimensions (L x W x H)			
Weather Center:	15.59 x 1.45 x 14.46 in		
	(396 x 37 367.5mm).		
Sensor:	3.22 x 1.69 x 6.96 in		
	(82 x 43 x 177mm).		

#### WARRANTY INFORMATION

La Crosse Technology, Ltd provides a 1-year limited warranty on this product against manufacturing defects in materials and workmanship.

This limited warranty begins on the original date of purchase, is valid only on products purchased and used in North America and only to the original purchaser of this product. To receive warranty service, the purchaser must contact La Crosse Technology, Ltd for problem determination and service procedures. Warranty service can only be performed by a La Crosse Technology, Ltd authorized service center. The original dated bill of sale must be presented upon request as proof of purchase to La Crosse Technology, Ltd or La Crosse Technology, Ltd's authorized service center.

La Crosse Technology, Ltd will repair or replace this product, at our option and at no charge as stipulated herein, with new or reconditioned parts or products if found to be defective during the limited warranty period specified above. All replaced parts and products become the property of La Crosse Technology, Ltd and must be returned to La Crosse Technology, Ltd. Replacement parts and products assume the remaining original

warranty, or ninety (90) days, whichever is longer. La Crosse Technology, Ltd will pay all expenses for labor and materials for all repairs covered by this warranty. If necessary repairs are not covered by this warranty, or if a product is examined which is not in need or repair, you will be charged for the repairs or examination. The owner must pay any shipping charges incurred in getting your La Crosse Technology, Ltd product to a La Crosse Technology, Ltd authorized service center. La Crosse Technology, Ltd will pay ground return shipping charges to the owner of the product to a USA address only.

Your La Crosse Technology, Ltd warranty covers all defects in material and workmanship with the following specified exceptions: (1) damage caused by accident, unreasonable use or neglect (including the lack of reasonable and necessary maintenance); (2) damage occurring during shipment (claims must be presented to the carrier); (3) damage to, or deterioration of, any accessory or decorative surface; (4) damage resulting from failure to follow instructions contained in your owner's manual; (5) damage resulting from the performance of repairs or alterations by someone other than an authorized La Crosse Technology, Ltd authorized service center; (6) units used for other than home use (7) applications and uses that this product was not intended or (8) the products inability to receive a signal due to any source of interference.. This warranty covers only actual defects within the product itself, and does not cover the cost of installation or removal from a fixed installation, normal set-up or adjustments, claims based on misrepresentation by the seller or performance variations resulting from installation-related circumstances.

LA CROSSE TECHNOLOGY, LTD WILL NOT ASSUME LIABILITY FOR INCIDENTAL, CONSEQUENTIAL, PUNITIVE, OR OTHER SIMILAR DAMAGES ASSOCIATED WITH THE OPERATION OR MALFUNCTION OF THIS PRODUCT. THIS PRODUCT IS NOT TO BE USED FOR MEDICAL PURPOSES OR FOR PUBLIC INFORMATION. THIS PRODUCT IS NOT A TOY. KEEP OUT OF CHILDREN'S REACH.

This warranty gives you specific legal rights. You may also have other rights specific to your State. Some States do no allow the exclusion of consequential or incidental damages therefore the above exclusion of limitation may not apply to you.

For warranty work, technical support, or information contact:

La Crosse Technology 2809 Losey Blvd. S. La Crosse, WI 54601 Phone: 608.782.1610 Fax: 608.796.1020

e-mail: support@lacrossetechnology.com (warranty work)

sales@lacrossetechnology.com (information on other products) web: www.lacrossetechnology.com

#### FCC ID: OMO-01TX (sensor), OMO-01RX (receiver)

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:

 THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND
 THIS DEVICE MUST ACCEPT INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.